Polaroid

Wireless Surveillance Camera
IP100
USER MANUAL

Polaroid

75 YEARS
SINCE 1937
Polaroid

? Questions?
Need some help?
This guide will help you
enjoy your new product

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Welcome

Thank you for purchasing the *Polaroid* IP Security Camera system. This high-quality video camera solution is easily installed—so easy, you will be able to do it yourself. We know security is very important to you. Once the system is installed, you will be able to transmit powerful, clear images to the cloud and monitor them from any digital device, including your smart phone.

Polaroid IP cameras transmit high-quality video content at 30 FPS on the LAN/WAN utilizing Motion JPEG hardware compression technology. Using TCP/IP standards, every *Polaroid* IP camera contains a built-in server which supports the most popular browser systems. Management and maintenance of your security device is done easily, right over the network. In a matter of seconds, you can start up or e-configure your system, and even upgrade the firmware. The resulting benefit is your ability to monitor your home or business, regardless of where it is located or where you happen to be.

PLEASE NOTE: WE MAINTAIN A HOTLINE TO PROVIDE BOTH CUSTOMER SERVICE AND INSTALLATION GUIDANCE. THE NUMBER IS
1-877-836-1190

1 Product Overview

Your new IP Camera is an IP-integrated camera solution. For both local area network- (LAN) and wide area network- (WAN) based users, our remote video surveillance products provide a clear, high-integration, low-cost solution. By integrating the network with your web service functionality, video can be transmitted anywhere through the network, allowing you to readily access live video through your web browser. This application works well in warehouses, large stores, schools, factories, and a series of other places, including your home. The camera is easy to install and operate.

Note: If you purchased a Wi-Fi device, the package should contain a Wi-Fi Antenna. Before installing the IP camera, check to make sure all items and accessories have been included. If anything is missing, please contact us immediately.

1.1 Features

- Powerful high-speed video protocol processor.
- High-sensitivity 1/5" CMOS sensor.
- It uses MJPEG compression and your choice of VGA/QVGA/QQVGA video definition.
- Adjustable video parameters and adaptable to a variety of web browsers.
- Internal microphone for audio collection and two-way audio function.
- Infrared night vision to support the long distance night vision scope and allow for 24-hour monitoring.

- Embedded web server to support multi-page browser viewing.
- Multi-level user management and password definition.
- Supports wireless network (Wi-Fi/802.11/b/g).
- Internal wireless module can flexibly create a wireless monitoring environment.
- Supports motion detection, allowing for whole-area/whole-house monitoring.
- Alarm messages can be sent via email, FTP, through an alarm server, etc.
- Supports multiple alarm functions.
- Compact for easy installation.
- Suitable for a variety of locations.
- Supports UPnP.
- Supports auto port-mapping of the router.
- Supports viewing via mobile phone.
- Supports remote upgrade functionality.
- Every device has a unique serial number and factory DDNS.
- Factory can provide free client software and multi-pictures, extended recording and video playback, etc.

Note: Your IP Camera set should include the following items: video camera, antenna, adaptor, 1.5-meter network cable, bag with screws, installation CD, mounting bracket.

2 Product views and interface

2.1 Product views

1. **Light Sensor Holes:** To detect the level of outside light and need for infrared LED
1. **Infrared LED**
1. **Lens:** CMOS sensor with manual lens adjustment capability to adjust the focus

Warning: Do not remove the plastic lens cover from the camera as it may cause damage to the internal components of the camera.

2.2 Device interface

1. Reset button
2. Power adaptor
3. Ethernet port/L

LAN: RJ-45 10/100 Base-T

Power supply: DC5V/2A
RESET button: To reset the IP Camera settings back to the factory default settings, press and hold the RESET button for 5 seconds.

3 Device installation

System configuration requirements for viewing multiple IP camera feeds:

CPU: 2.06 GHz or above
Memory: 512M or above
Network Card: 10M or above
Display Card: Microsoft DirectX 9 graphics device or above
Recommended Operating System: Windows XP/ Vista/Windows 7/Windows 8
Supports multiple web browsers: Internet Explorer/Firefox/Safari/Chrome, etc.

3.1 Hardware installation

When installing your IP Camera's hardware, follow each step carefully in order to ensure optimum camera operation. Take care with the IP camera's installation

environment; make sure the camera unit is mounted in an indoor environment, protected from rain and other forms of moisture.

1. 1) IP Camera - Plug power adaptor into IP camera.
   Note: Use only the power adaptor that comes with this product. DO NOT attempt to substitute it with any other, as other adaptors may cause damage to your unit.

2. a) Connect the network cable into both the IP camera and the router. In addition, make sure the IP camera is turned on and working properly. The Subnet should be the same for the IP camera and your PC (on a LAN, you can also use the network cable to connect the PC and IP camera)

b) When you use the IP camera for the first time, the IP address of the IP camera will be obtained automatically. (Before using, make sure the DHCP Server function in the LAN router has been opened,) The system is very convenient for users as it is suitable for different LAN network environments.
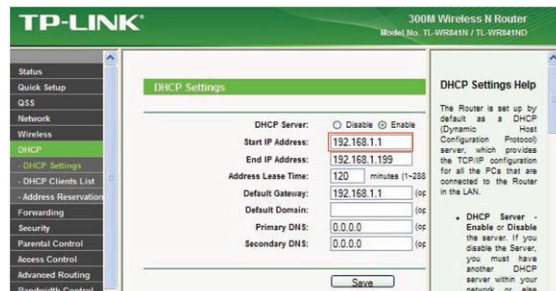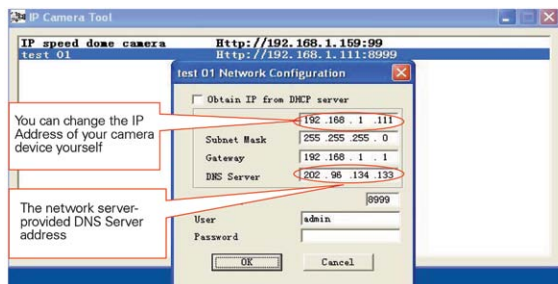

3. As shown below, you can locate your computer's IP address and DNS server information
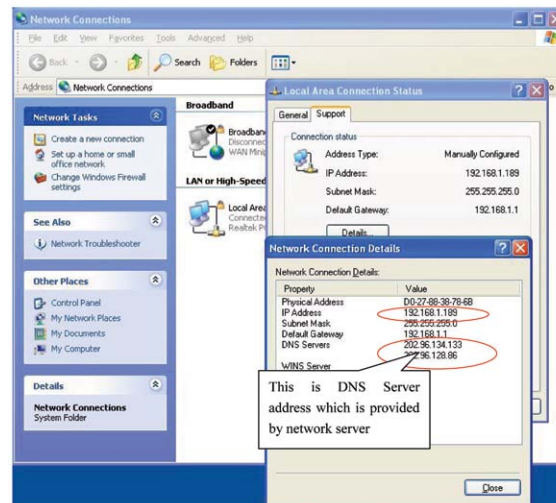
4. The camera's IP Address can be changed, but it should always be the same IP address as your computer's subnet.

This is the DNS Server address which is provided by the network server.

In Windows, you can perform a ping test to make sure the IP camera is properly connected and functioning. In the CMD window, which can be accessed in Windows 7 by clinking on the Start icon, then on All Programs, then on Accessories, and finally on Command Prompt, or by simply entering the letters cmd in the search field and pressing Enter, type or copy in: ping 192.168.1.111.

If you are able to ping the IP camera, that means the IP camera is working properly and connected correctly.

3.2 Software installation

Software installation:

The IP camera system software is very easy to install via the installation program.

Insert the CD into your computer's CD drive. The CD will automatically run the software installation of the IP camera user interface (IPCamSetup). Note: If the CD does not run automatically, you will need to access the CD drive and double-click on IPCamSetup. Follow the steps to install the software.

If the IP camera software interface does not appear, click "autorun.exe" on the CD. autorun Then locate "search.exe" . Click and install the LAN Tool to your computer. You will then be able to see the "IP Camera Tool" icon on your computer's desktop .

4 Viewing the IP camera on a LAN

4.1 Connecting via a LAN

4.2 Searching for and setting the device IP address

Before searching for your IP camera via the IP Camera Tool function:
1. Make sure the IP camera's network cable is plugged in and that there is a good connection with the network.
2. The router should have DHCP (Dynamic Host Configuration Protocol) enabled because the IP camera's factory setting is to automatically obtain an IP address from the DHCP Server.
3. Turn on the IP camera and wait 20 seconds for it to boot up.

•   Search IP camera

When you run the Search function in the IP Camera Tool, you will obtain a list of the devices connected to the network. You will see your IP camera listed, including the IP address, the port, and the camera name. If you are connected via Wi-Fi, you will see the Wi-Fi IP address. See the below picture for an example.
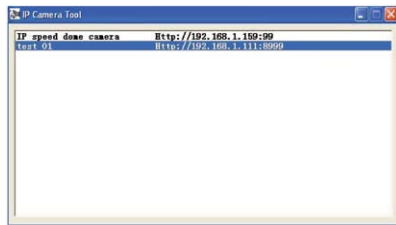
Note: The IP Camera Tool function can only be used to search for a camera device's IP address and port on a LAN. The tool cannot perform a search for a device's IP address and port on a WAN.

When searching or attempting to access your IP camera via the IP Camera Tool function, you will receive one of three responses:

1. If the software has not found an appropriate IP camera server on your LAN, you will see a message that indicates "No IP server found" and the program will be automatically shut down;
2. If the software detected one or more cameras on your network, the IP address of each camera will be listed on your computer screen. If you are installing your first camera, it will be the only one listed;
3. If the IP cameras installed on your LAN do not share the same subnet with the monitoring PC, you will see a message that indicates "Subnet does not match. Double-click to change." Select the prompt and then use the right-click function on your mouse to select and set the static IP address of the camera to the same subnet as your PC on the LAN.

IP Camera Tool Options
To quickly access the six functions available with your IP camera, highlight your IP camera on the list of devices, right-click on your mouse, and a box will open that lists the options. They are as follows: Basic Properties, Network Configuration, Upgrade Firmware, Refresh Camera List, Flush Arp Buffer, and About IP Camera Tool (see Picture 12).

•   Basic Properties – When you click on Basic Properties you will find three options: 1) Device ID, 2) System Firmware Version, 3) Web UI Version.

- Network Configuration – When you click on Network Configuration, a box will open that allows you to configure you network settings. You can configure the network as follows:

IP address: Fill in the assigned IP address, making sure it has the same subnet as the gateway, the computer, and the router.
Subnet Mask: The default subnet mask of the equipment is: 255.255.255.0.
Gateway: Make sure it is in the same subnet as the computer's IP address.
The default Gateway address is 192.168.1.1.
DNS Server: The IP address of the Internet Service Provider (ISP). This information can also found in the Network Connection Details window(see Picture 15).

http Port: The default http port number is usually 80.
User: The default administrator user name is: admin.
Password: The password is: No password.

Obtain IP from DHCP server: If you click on (enable) "Obtain IP from DHCP server" you will automatically be assigned a dynamic IP address for your equipment if your gateway supports DHCP (most gateways support DHCP). Make sure your router is connected and has the DHCP function.

Note: If you receive a prompt that says, "Subnet does not match. Double-click to change," reset the camera's IP address, subnet mask, gateway, and DNS server numbers.

- Upgrade Firmware
  To upgrade the system firmware and the Web UI, start by entering your correct user name and password. (The user should have administrative authority.)

- Refresh Camera List
  Refresh camera list manually.

- Flush Arp Buffer
  When the cable network and wireless network of the device are both a fixed IP address, you may encounter an error. In the event you can locate the camera IP address but are unable to open the camera web page, try using the flush arp buffer to open.

- About IP Camera Tool
  This option lets you check the software versions of the IP Camera Tool and the ActiveX control.

4.3 IP Camera Login

From the list of devices in the IP Camera Tool window, double-click the IP address of your IP camera. Internet Explorer will automatically open and display the camera login page. Or, you can access the camera by typing the camera's

IP address directly into your browser. For example: http://192.168.1.111:8999.
(We recommend you use Internet Explorer as your browser due to its increased functionality.)


At the camera's login interface, enter the correct User name (default: admin) and Password (default: no password). Click "Sign in" to enter the monitoring page.
Once logged in you will see a drop-down list for Language. This allows you to select your preferred operating language.
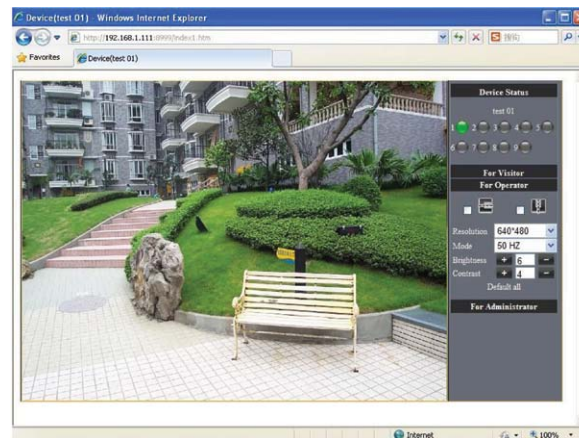
Users who are logged in correctly will be able to view images via the video stream. Depending on a user's level of administrative permission (Administrator, Operator, or Visitor), the user will be able to operate the camera according to the permissions available for their assigned administrative level.

In addition to Internet Explorer, users can access their system and view streaming video through a variety of other browsers such as Safari, Firefox, or Chrome.
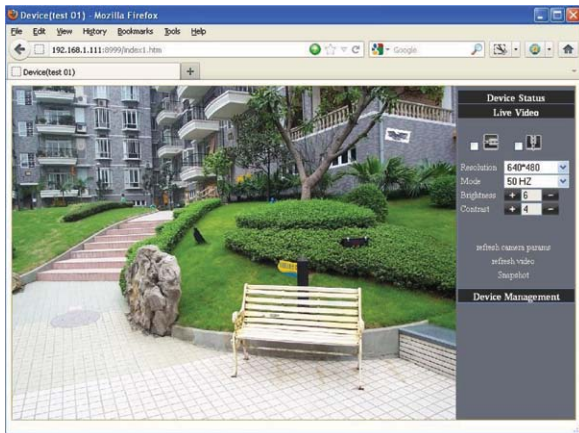
4.4 IP camera operation
4.4.1 Visitor status users

If the status indicator for an IP camera is lit, a user logged in as a visitor has only the lowest level of operation which is mainly that of detection (viewable only via Internet Explorer)
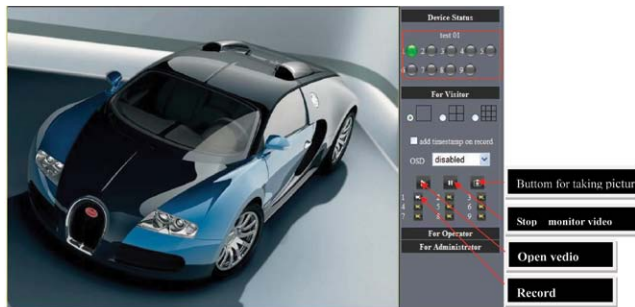
The Device Status indicator is located at the upper right corner of the screen. This color-coded indicator shows the status of up to nine IP cameras.

- Gray – No device is connected to this channel .
- Green – A device is connected to this channel and is functioning properly .

- Yellow – There is a device on this channel but it has failed to connect to the main device .

- Red – The device on this channel is in alarm status .

If you want to detect all nine views, click this icon .

OSD (On-screen display): Displays the date and time of the video. You can disable the OSD function or choose a different color for this display.

Snapshot: Click on this icon to take a snapshot of the live action.

REC: Click on this icon to record (REC). Click this icon to stop recording.

Note: The Record file name is: device Alias_ Current time. Avi
For example: IPCAM_20101011134442.Avi
This means the device name is IPCAM, its recording date is October 11, 2010, and the recording end time is: 13:44:42.

When motion is detected the system will check and send a notification email containing a snapshot.
The name of the picture that will be sent to your email inbox will appear like this: device id (Alias) _ Current
time.jpg

4.4.2 Operator status users
Users who login with operator status, in addition to having access to all the visitor-level functions, can also operate the Pan/Tilt feature and adjust the video settings.

Image around flip   Image fluctuation flip   color parameter
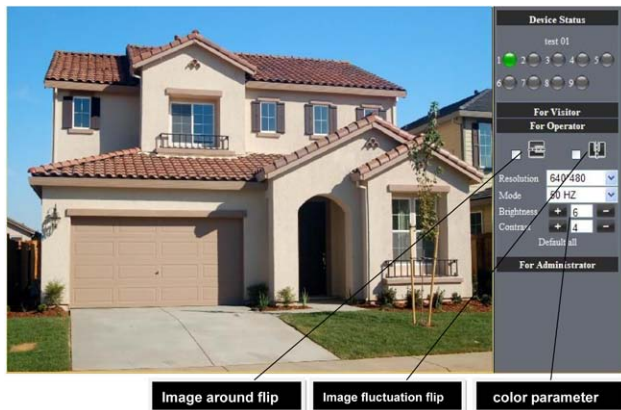
Direction control: Users can click on the arrows to change the direction of the camera view.

 Reverse image (up and down)

 Mirror image (right and left)

Resolution: The resolution can be set at up to 640 X 480 for VGA displays and up to 320 X 240 for QVGA displays.
Work Mode: 50Hz/60Hz/Outdoor

Brightness and Contrast settings: Click on the or to adjust the brightness and contrast settings.

4.4.3 Administrator status users
Users who login as administrator have authority to adjust all camera settings. When you click on the "For Administrator" button, you will enter the Administrator interface to all device settings.
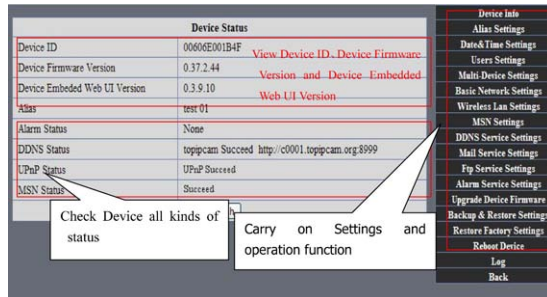
Alias Settings: Lets you input a new name, or change an existing name for your device.
Date &Time Settings: Date &Time Settings page.
Users Settings: This system allows up to eight user accounts. Each user's name, password and authorization level (Administrator, Operator, or Visitor) can be configured here.
• **Visitor:** Authorizes you to only view.
• **Operator:** Authorizes you to control the direction of the IP camera and set some of the parameters.
• **Administrator:** Authorizes you to perform advanced configurations of the IP camera.
UPnP Status: If you access your IP camera remotely, make sure the UPnP Status indicator shows "UPnP Succeed."
Upgrade Device Firmware: Access this page if you want to upgrade your device firmware and download system software updates. You must first upgrade the device firmware and then upgrade the device embedded Web UI (in that order).
Restore Factory Settings: If you click on Restore Factory Settings, a prompt will appear. Select OK and the camera will return to the original factory settings and the device will reboot.
Reboot Device: If you click on Reboot the Device, a prompt will appear. Select OK and the device will reboot.
Back: Clickon Back to return to monitoring mode.

5 Accessing the IP Camera via the Internet

5.1 How your IP camera connects to the Internet
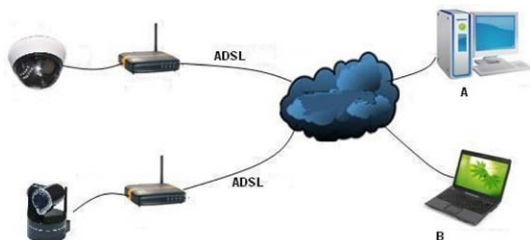
Related settings and IP camera login

1. To view your IP camera via the intenet, open a browser and enter your external/public internet IP address into the address bar, then a colon sign (:), and then enter the port number (for example, 192.168.1.10:8090). That should bring up your camera's login screen.
2. If you are using ADSL to access the Internet, you will need to obtain the IP camera's current WAN IP address or configured DDNS.

There are two ways for you to obtain the WAN (Internet, public) IP address:

1. Perform an online search to obtain the WAN IP address - It is very easy for you to obtain your Internet (public) IP address if your IP camera and computer are on the same subnet. Open your browser and type in: http://www.whatismyip.com or http://www.myip.cn. It will bring up your WAN'S IP address (see below).

2. Obtain from the router.

See the below diagram (Picture 27) for an example using a TP-LINK router. According to the router manual, the router's IP address is 192.168.1.1. To log into the router, type 192.168.1.1 in your browser. You will see the status of the router and also find it's WAN IP address. In this example, the WAN IP address is 116.24.235.122.

You will now be able to view the IP camera from the Internet. Type the correct WAN IP address into your browser. For example: http:// 116.24.235.122:8999

Note: Make sure the Port's UPnP is available. You can open UPNP as follows. Go to the Settings page for your router (see full details in the user manual for your router) to enable UPnP. Or, enable the virtual mapping function. Add the IP address and service port for your device to the virtual mapping list.
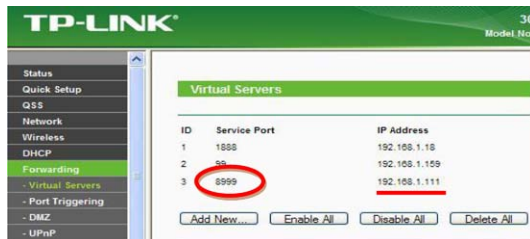
Users can access the IP camera device via the Internet by inputting the IP address. For example, http:// 116.24.235.122:8999

With DDNS (Dynamic DNS) service, you can use the server of your choice and you will receive a dynamic IP address real-time that corresponds to that server. Simply put, whenever the user is on the Internet, the user will get an IP address. DDNS can ensure that a fixed domain name can access a user's device.
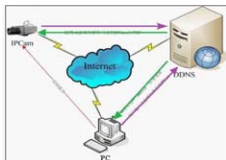
Our products have been configured for DDNS services. To use DDNS:
1. Log into the camera, click Network->DDNS Service Settings.
2. Select Third Party DDNS. This domain will be provided by a Third Party DDNS provider, such as DynDNS, Oray, 3322, etc. (You must have an account that must be registered on the web. To register your DDNS account, go to: www.dyndns.org) Select your provider and complete your DDNS user name, password and host name.
3. You must change the camera's http port number from its default port number of 80. You can change it, for example, to 100, 8090, etc. Click "OK" and wait about 30 seconds for the camera to reboot. Make sure the Subnet Mask, Gateway and DNS Server numbers are the same as the ones on your router.
4. Set Port Forwarding in the router.
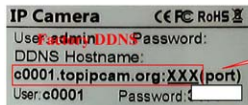
You need to fill in the DDNS and port. When you are logged on to the IP Camera tool you can also find the DDNS server settings via the Device Status screen. For example: http://polaroidsafety.com:8999/ . The browser will take you to IP camera login page.
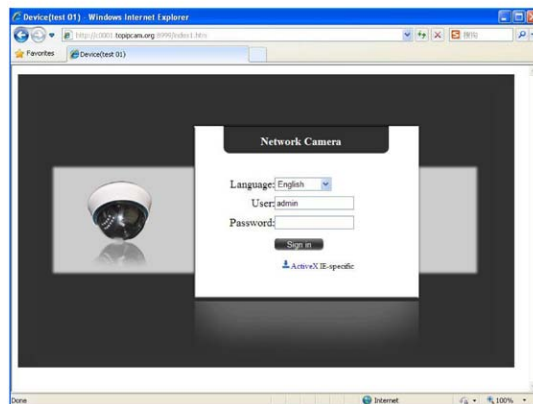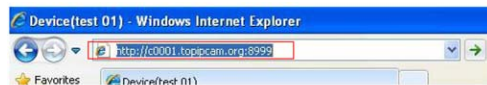
Type the device's User name and password in the login box to log into the equipment.

If you type in the domain name but you are not able to open the IP camera in the browser, you will receive an error message, as shown in the image below.

You must then check the status of the IP camera on the local area network, confirm that UPnP is functioning and DDNS is successful.

To use UPnP to set the port mapping function successfully, first check to make sure your router's UPNP setting is on. If the UPnP function is unavailable, refer to the user manual for the router for details on how to enable the router's UPnP setting.

If you use TP-LINK router, please refer to these instructions

In order to automatically allow your camera to utilize UPnP forwarding, input your router's IP address in your browser (for example, http://192.168.1.1). You can locate the router's IP address on the label on the router unit). Once logged into your router's setting page, click on Forwarding > UPnP, to make sure UPnP is enabled (see diagram below).
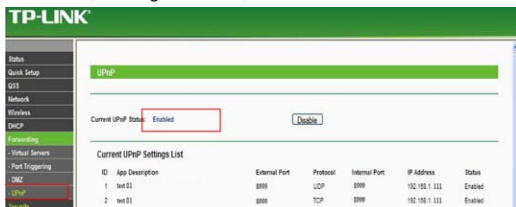
Note: You must match the camera's settings to those of your router. If you are using a TP-LINK router, please refer to the router's user manual. Make sure the "Obtain IP from DHCP Server" box is checked and the UPnP is enabled. To manually set the port forwarding in your router, log into the router and select the "Forwarding" option. Click the "Add New" button and provide the service port number and IP address of the camera.
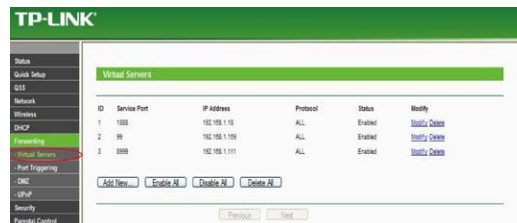
6 Accessing your IP camera via mobile devices - mobile phone, iPad, etc.

There are two ways to access the IP camera through your mobile device. One is to type the camera's IP address directly in your browser (IP address or DDNS).

6.1 Inputting the IP address in your mobile device browser – See the below examples of several popular mobile devices.

iPAD
Open the iPad browser (Safari)

Type in the IP camera's IP address. For example: http://c0001.topipcam.org;8999

At the login prompt enter your User name and password. The default User name is: admin. There is no password.
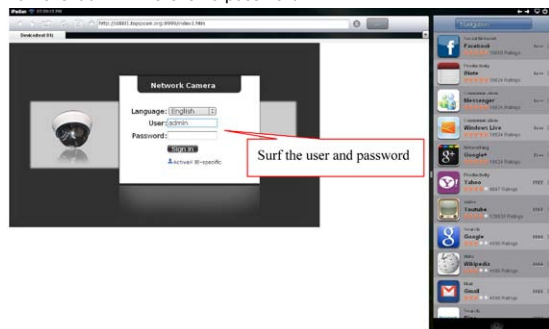
Select your language from the drop down box and click the "Sign in" button.
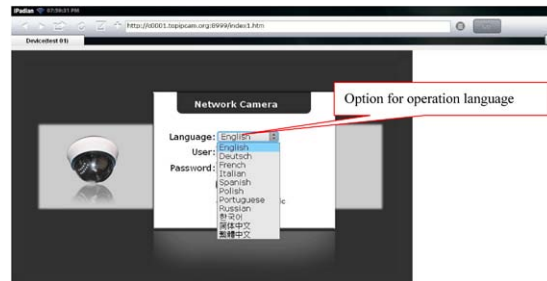
If your login is successful you will be able to view live video.

Android phone:
From the device menu open your browser and type the IP camera's IP address

in the browser. For example: http://c0001.topipcam.org 8999

Type in the IP camera's User name and password at the login interface and click the "Sign in" button.

6.2 Install client-side software to access the IP camera
This IP camera system supports both client-side software and several third-party software providers. The following is the setup process for manufacturer software (Android version).

1. You can get the installation application from the IP camera system CD or you can download it from the following website:
   https://play.google.com/store/search?q=reecam&c=apps
   Choose the correct installation file: ipcamera.apk for Android version 1.6 or above application environment.
   Note: Please make sure your mobile phone device can connect to the Internet before installing this app.
2. IP camera application installation steps:
   2.1 Insert SD card into Android mobile phone.
   2.2 Connect the cell phone to the computer via a USB data cable.
   2.3 Choose the USB connection mode on your cell phone. In "My Computer" you will see the SD driver.

2.4 Copy the ipcamera.apk onto the SD card.
2.5 Disconnect the device, locate the ipcamera.apk file in "File Management" and run it.
2.6 The IP camera application will appear on your phone's home screen after you have successfully installed it.

Software operation steps:
Make sure you have Internet access via a Wi-Fi connection. In Google Play, type "reecam" in the search field to locate the Android reecam application. Download and install the application.

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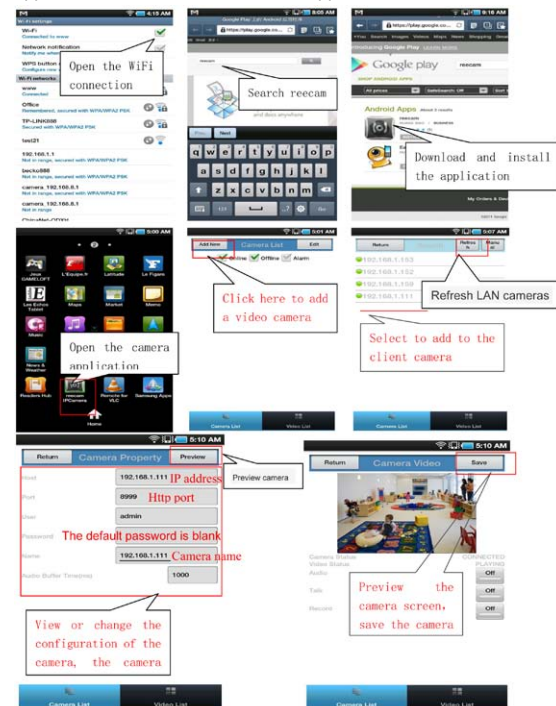
You can edit the camera, modify the camera configuration, and stop the camera's operation.

Editor has added cameras

Edit camera configuration

Delete the camera

Edit camera of the configuration

Continue to add the camera

Add external network camera domain

Cameras have been added
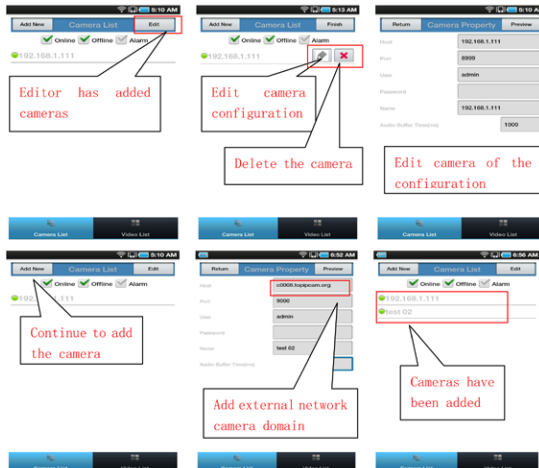
For each camera on the camera list, you can watch camera in real time, control camera's PTZ (pan-tilt-zoom), and switch the camera's audio, intercom, and video on and off.

Fingers sliding PTZ control
Click on the picture to stop rotation

Audio、intercom、video switch

A list of cameras and video can be switched to view
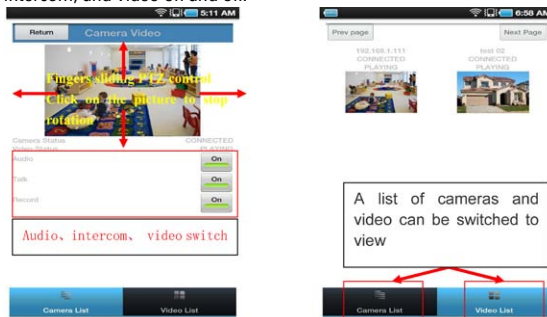
3. The IP camera setup process for iPhone/iPad -
    Firmware requirements: Compatible with iPhone, iPod Touch, and iPad.
    System requirements: Requires iOS 4.2 or above.

    You can download the authentic software [image] from the App Store at:
    http://itunes.apple.com/cn/app/reecam/id479468959?mt=8

    The software operation process is as follows:

Open the App Store search reecam

Download and install reecam

The run has been installed good reecam

Click to add cameras

7 Other settings

7.1 Network Settings
7.11 Basic Network Settings
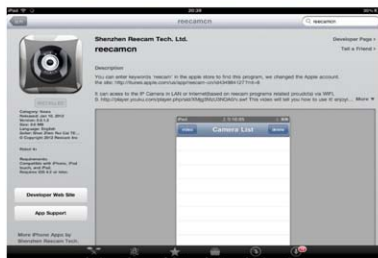
If the router your IP camera is connected to has the DHCP function, you can check the box to "Obtain IP from DHCP Server." If it does not, make sure the box is unchecked so you can manually fill in the network parameters.

http Port: In most cases, you can leave this value as 80. However, if your Internet Service Provider blocks this port, you may switch to another port number such as 85, 8080, 8888, 9000, etc.
(The http Port number can range from 0 to 65535. If you have multiple cameras or devices, make sure you use different http Port numbers for each piece of equipment.)

a. In the IP Camera Tool, select your IP camera from the list and right-click on your mouse to open the Network Configuration option. Enter your new http Port number where indicated.

Set Network IP
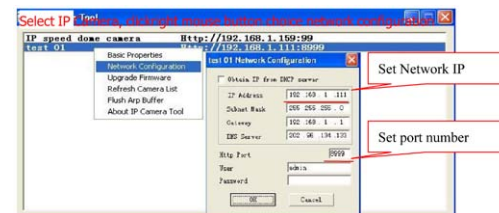
Set port number

b. Click on the "For Administrator" button, then "Basic Network Settings" and change the http Port number where indicated.

Set Http Port Number
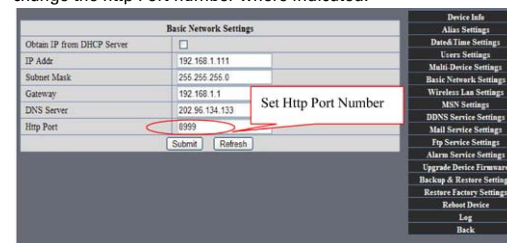
7.1.2 Wi-Fi Settings
Log into your wireless router and go to the Wireless Settings page, where you will be able to locate your router's SSID, Channel (under 10), and Encryption Authentication information, as shown below:

Log into your camera as Administrator, open the Wireless LAN Settings page, and fill in every setting (using the same information as used for your router). Upon completing these steps you can unplug the network cable, as wireless network functionality is now enabled. See the example below.

7.1.3 Adhoc point-to-point wireless connection settings
1) Log into your camera as Administrator. Open the Basic Network Settings interface, check the device status.
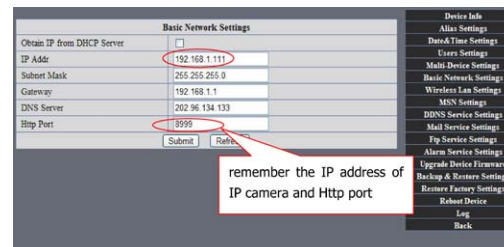
2) Click on the Wireless LAN Settings interface. In the Network Type dropdown box, select Adhoc. You can define the SSID, for example, 001. Wait for the camera to reboot.
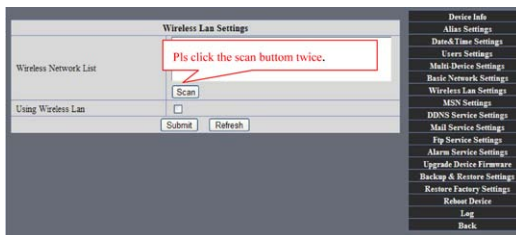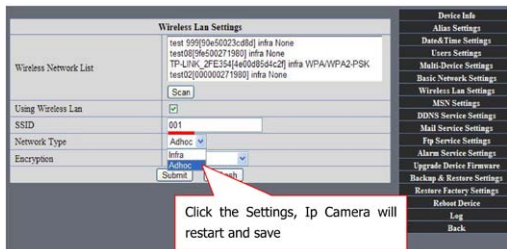
The device is rebooting. Don't shutdown it's power. Please waiting … 26

3) Unplug the network cable from the IP camera. Using a laptop or other wireless device (Smart Phone, iPad, etc.) locate the SSID you defined in Step 2, then click on it to connect.
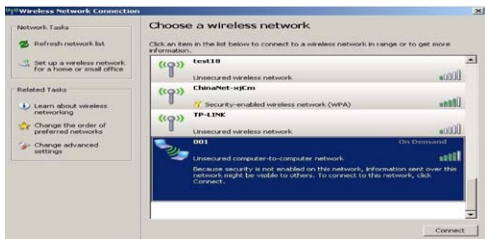
After clicking on the wireless network of choice, check the connection status of your IP camera.
Note: The IP address of your connected laptop must have the same subset as your IP camera. If it does not, please reset the IP address of your laptop manually.

You can now use the IP Camera Tool or enter the camera's IP address directly into your browser in order to view.

1.   Viewing via the IP Camera Tool

2.   Type the camera's IP address into your browser. At the login interface enter your User name and password.
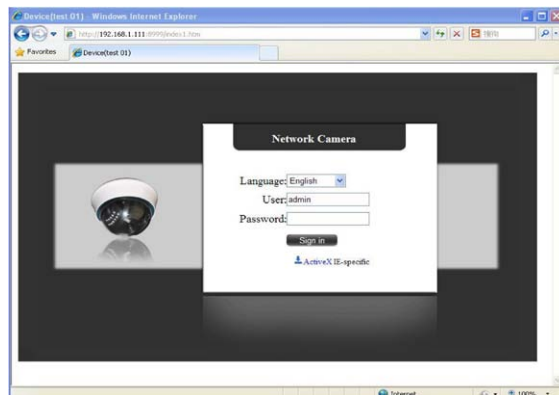
Click on "Sign in" and you will be able to view.
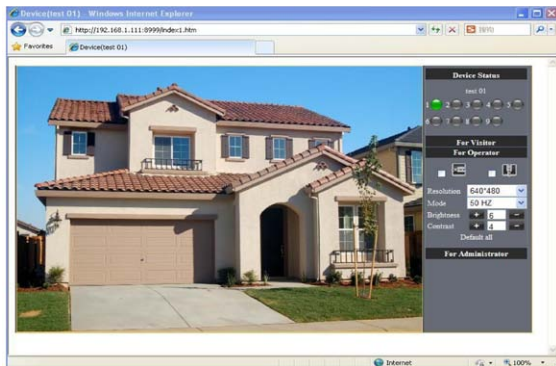
7.2 Multi-Device Settings

Adding cameras for viewing on the LAN -

On the Multi-Device Settings page, you can see all devices you have set up on the local area network. The first device is the default. The system software will support up to nine IP camera devices for simultaneous monitoring. To add another device, click on the next device (for example 2nd device), and then double-click on the item in the "Device List in LAN" window. The Alias, Host, and http Port information will fill in automatically. Enter the correct User name and password then click the Add button. Follow these same steps to add more cameras. When you have finished adding all your devices, click the Submit button.
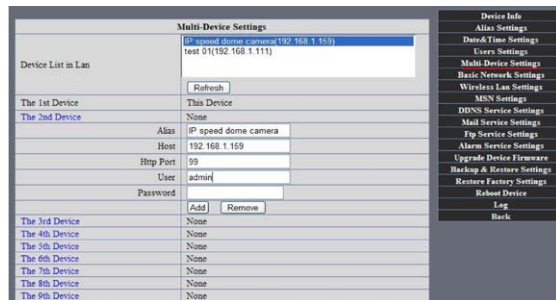
Adding cameras for Internet viewing -

First, make sure the camera added can access the Internet via the IP address or DDNS domain. For example: http://219.133.200.166:9999 or http://IPcam.dyndns.org:9999. You can enter the Host: 219.133.200.166, http port: 9999, or Host: IPcam.dyndns.org, http port: 9999. Enter the correct User name and password then click the Add button. Add more cameras in the same way.
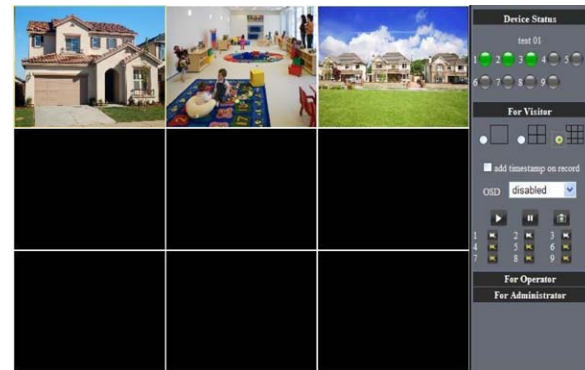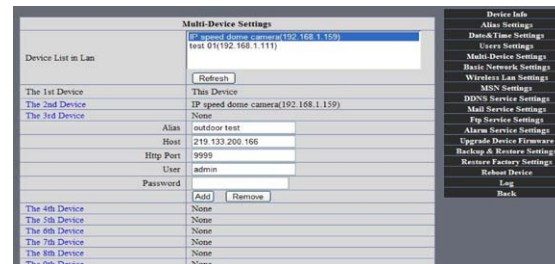
7.3 MSN Settings

Go to the MSN Settings page. Enter your MSN User name and Password. You can then add up to ten MSN buddies. Once submitted, they will appear on your MSN Friends list. Click Submit and then Reboot Device (see picture below). Note: Before setting MSN, set Port Forwarding (see DDNS Setting instructions for details).
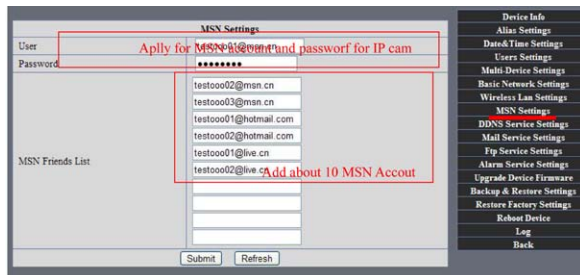
First, login and click on Contacts. Select Add a Contact and then fill the contact's MSN account information (email address) in the Instant Messaging Address space. Click Next, then Finish. You can obtain MSN accounts and passwords for up to ten MSN friends.
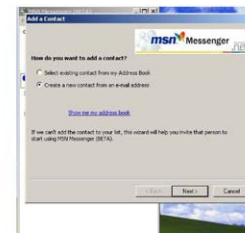
Next:

From your IP camera's MSN account page, open a chat dialogue box and type in "URL?" After several seconds you will receive a reply with a remote access IP

address for the camera in the chat box, as shown below :
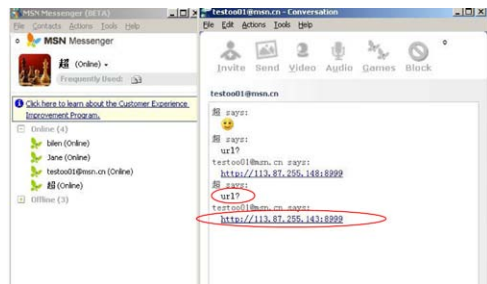
You can type the IP address into your browser, and then view the IP camera (see below).
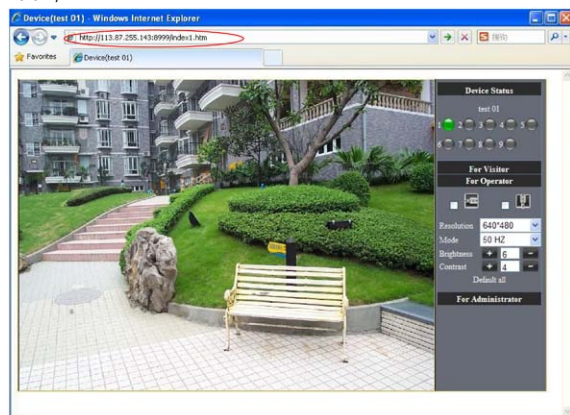
Note: You should first complete your MSN account information (email address) in the IP Camera Tool.

7.4 DDNS Service Settings

DDNS Service: The IP camera system supports protocols from several DDNS providers. These DDNS providers include: Dyndns.org, topipcam.org, Peanut Shell, 3322.org.
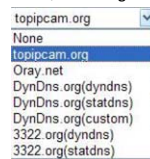
To use DDNS, you must already have a registered account, User name, Password, and Host (see section 5 for details). The DDNS Host is the DDNS provider's Domain Name.

7.4.1 Factory-provided DDNS
Each camera device includes factory-provided DDNS information, usually found on the bottom of the device. The camera manufacturer gives every device a unique DDNS address. For remote monitoring with the IP camera, users will need to enter this DDNS IP address and port information into their browser.
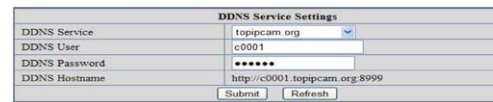
Note: If you are unable to access the camera via the DDNS domain name and UPnP, you must change the port mapping function on your router.

7.4.2 Third-party DDNS
In addition to factory-provided DDNS, users can also use third-party DDNS providers, such as DynDNS (www.dyndns.com). To use DDNS, you must already have a registered account, User name, Password, and Hostname. Provide this information in the DDNS Service Settings box, as shown below.
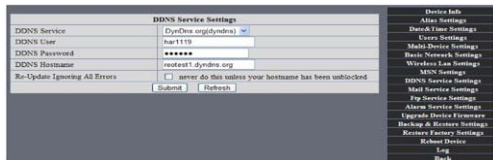
Note: Type the name of the third-party DDNS provider into your browser, and it will be retained. If your camera's default http Port number is 80, you must change it to another number. For example: http://reotest1.dyndns.org:8999

7.5 Alarm, Mail and FTP Service Settings

Alarm Service Settings - You can configure the Alarm Service Settings to receive and send emails based on specific IP camera events. You can receive an Alarm Notification email containing images taken during an alarm phase. In the Alarm Service Settings window, check the boxes for Send Alarm Notification by Mail and Upload Image on Alarm to enable these features.
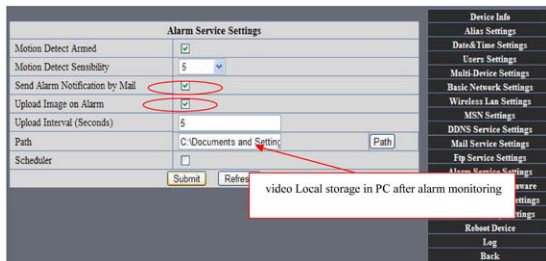
Mail Service Settings – In this window you can configure your email information for receiving IP camera system emails. You should fill in the following information:

Sender: This IP camera device uses the sender mailbox to send emails.
Receiver: Indicates the email address to receive email from the Sender. You can set up to 4 receiver mailboxes.
SMTP Server: The SMTP server for the sender mailbox.
Need Authentication: If the Sender mailbox needs authentication, check this box and type in the
SMTP User name and Password.
Mail test: After configuring your Mail settings, and click Submit. After you have done this, click on the Test button. The below image shows the Mail test results.
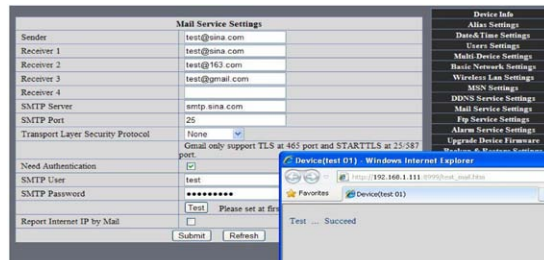
Gmail is also set the same way. Simply fill in the correct SMTP Sever address, User name and Password.
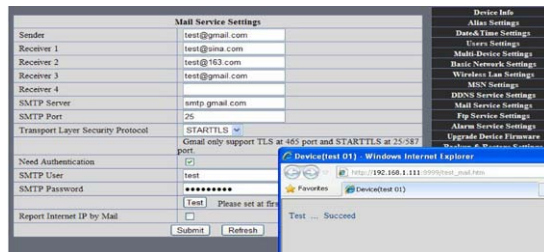
If you receive an error message after clicking on TEST, recheck the information you entered to ensure it was all correct. Make the necessary corrections and click on TEST again. Below are some of the error messages you may receive:

1. Cannot connect to server.
2. Network error. Please try later.
3. Server error.
4. Incorrect user or password.
5. Sender is denied by the server. You should re-authenticate the user and try again.
6. Receiver is denied by the server. Your server's anti-spam privacy software could be causing a block.
7. Message is denied by the server. Your server's anti-spam privacy software could be causing a block.
8. Server does not support the authentication mode used by the device.

Report Internet IP by Mail: At the bottom of the Mail Service Settings window there is a check box for Report Internet by IP Mail. If this box is checked, you will

receive the camera's internet IP information via email (For example: The IPCAM 's URL is http://119.123.207.96:9002). Make sure the port is correctly mapped to the router via the UPnP or Virtual Map function.

FTP Service Settings - If you have an FTP server on the LAN (IPCam. com) and email ipcam , fill in the settings as shown below.
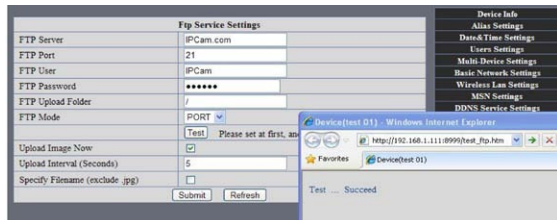
To create an FTP Server on the LAN -
1.   Create an account, click Next.
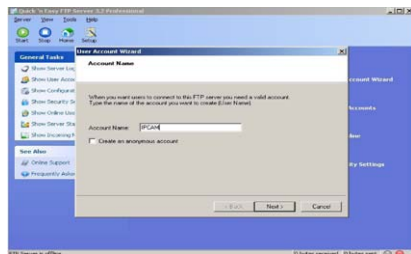
2.   Check off each type of permission for the account, click Next, then Finish to save your settings.

3.   Click on the Start button.
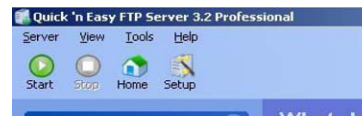
Continue through the steps to finish it:
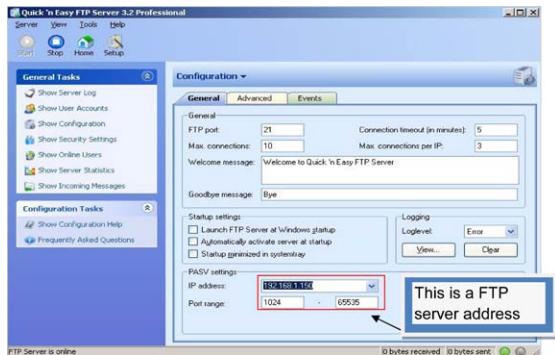
4. You can now use the IP camera's FTP server account.
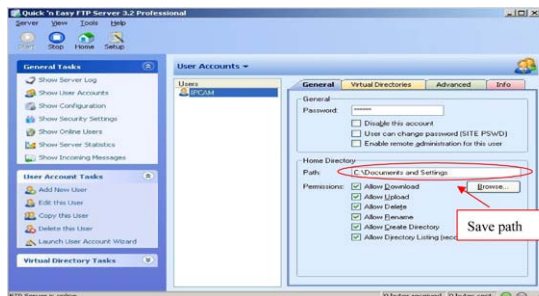
5. On the Ftp Service Settings window, fill in your FTP Server setting information. Click on Submit when done.
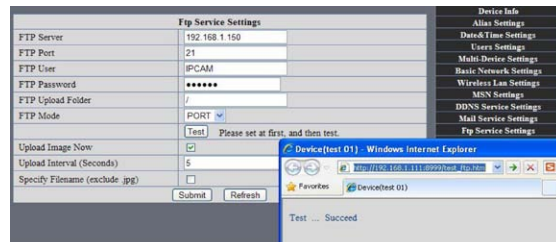
6. Click on the Test button to confirm setup and testing is successful. When your IP camera alarms, images will be uploaded to your FTP server, according to the settings of the main directory path (see below)
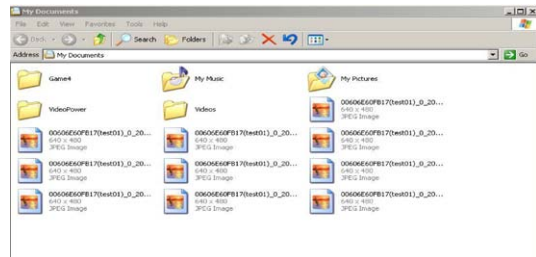
FTP Server: The FTP server IP address.
FTP Port: The port is usually 21.
FTP Mode: This will support both standard (PORT) and passive(PASV) modes.
Upload Image Now: Select this box and images will be uploaded.
Upload Interval: Lets you set the time interval (in seconds) you wish between image uploads.

7.6 Motion Detection
Go to the Alarm Service Settings page to configure the Motion Detection (alarm) function.

Motion Detect Armed – When you enable Motion Detection Armed, the camera will sound an alarm when motion is detected and it will record the incident. Should motion be detected, the Alarm Status will automatically switch to Alarm Detect Alarm and perform the following:

- Send an email containing the alarm information.

- Send images to the FTP server, according to the interval set for sending images.

Alarm Scheduler – Using the scheduler, you decide when you want your camera to alarm. You can set the alarm schedule according to days of the week, hours in a day, and even by quarter hours. On the Scheduler, you can easily click on the times you want the camera armed (the section selected will turn blue to indicate your times). Click again to undo your schedule, and the field will return to its original gray (blank). If you do not use the scheduler, the camera will alarm any time motion is detected.

Alarm Scheduler

Motion Detect Armed - When you enable Motion Detect Armed, the camera can be triggered to send email alerts and record images. On the Device Status indicator on the camera monitoring page, the green icon becomes red and an alert will sound.

Motion Detect Sensitivity - You can choose up to 10 motion sensitivity settings. The higher the number, the higher the level of sensitivity.

Send Mail on Alarm – When you check on the "Send Mail on Alarm" box, you enable this function and an email with a picture will automatically be sent if an alarm is triggered. Make sure your Mail Service Settings are correct.

Upload Image on Alarm – When you check the "Upload Image on Alarm" box, you enable the function of having all images sent to your FTP file once the alarm is armed. You can set the intervals (in seconds) at which images are uploaded.

REC automatically and save to PC - When you enable motion detection and open the camera monitoring page on your computer, if an alarm is triggered, the camera will automatically start to record (REC) for several seconds and save the images to your computer.

Storage path can be changed
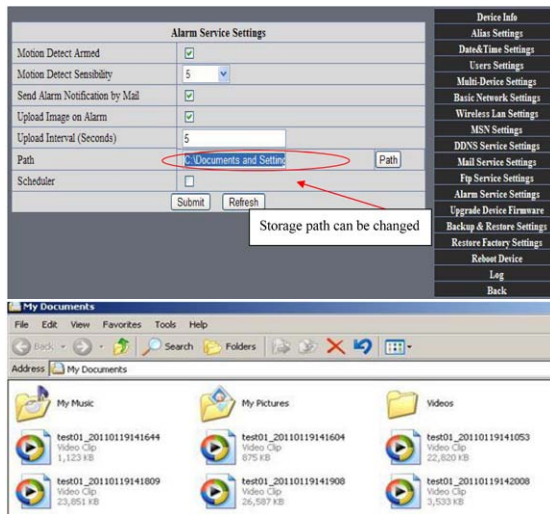
7.7 Date & Time Settings

Click on the Date & Time Settings function to set the time and date for your camera. Make sure you use the correct Clock Time Zone for your country and region. If your IP camera is connected via the Internet, you can select Sync with NTP Server and it will automatically check the time and date via the running NTP Server. Or, you can select Sync with PC Time to check the time and date on your computer.

The huger the Number is, The slower it will be.
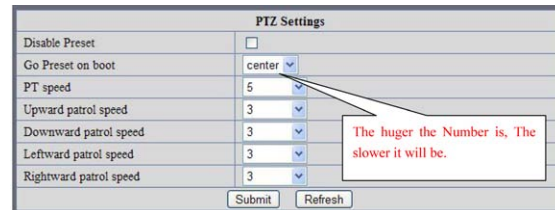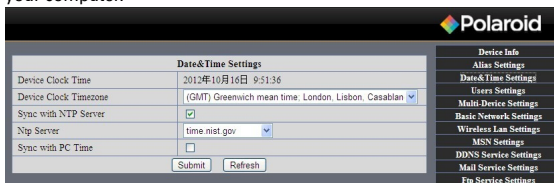
7.8 Upgrade Device Firmware
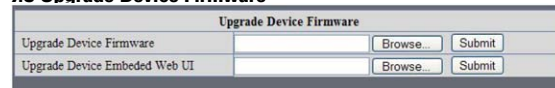
Firmware upgrade

The IP camera system has two kinds of programs. One is system firmware, and the other is application firmware. Each can be upgraded separately.

7.9 Backup & Restore Settings

- Backup: You can back-up your established IP camera settings by clicking on the

Submit button. All settings will be stored in a Bin file. `params.bin`
- Restore: You can restore your IP Camera Tool and all settings. If you wish to change camera settings to a new status, click Browse, select the new settings from the Bin file, then click Submit.
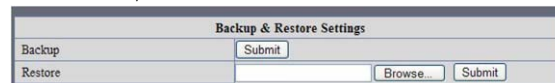
8 Appendix

8.1 Register and Apply for DDNS Service

Before using DDNS management system for first time, users must have a registered account to manage the domain status.

Step1: In your browser, type http://www.dyndns.com and Create Account. Type in the domain name: dyndns.com, then click Add.

Step2: Enter your information. Click on Create Account.

Step3: Shortly, you will receive an email from DynDNS Support containing a confirmation link
(for example, https://www.dyndns.com/confirm/create/e-YS60Gz9oBASMm7rbO6AA).

Step4: Click on the link to activate your domain name as shown below.

Step6: You should now have a Dynamic Domain Name (Figure below) which you can use in the DDNS Service Settings function (see Section 7.4).

When you have properly completed registration for DDNS, you can fill in the DDNS Service Settings information in the IP Camera Tool. When properly set, the DDNS Status of your IP camera
will be shown as below.

How to set DDNS online.
Follow these steps. Go to: Menu, Start, Run —> Type in CMD, click enter. This will allow you to check your DDNS status. See below.

Using the PING command, the network response will provide you dynamic domain name. This indicates the domain name works.
If the domain name update is not successful, it could be that the DDNS settings are not correct or that the DDNS address configuration is incorrect.

8.2 IP Camera Abbreviations & Terminology
IPCAM: Refers to the IP Camera Tool, used for IP camera control settings
User Name: user
Password: password
Pri: Access level priority (1: visitor, 2: operator, 3: Administrator)
Resolution: Image resolution (8: 320X240 QVGA, 32: 640X480 VGA)
Rate: Image transmission speed and scope 0-23
Brightness: Brightness, 0~255
Contrast: Contrast, 0~6
Mode: Mode 50Hz/60Hz, outdoor
Flip: Rotation
Keyboard shortcuts: 0: Reset to straight, 1: Flip up or down, 2: Mirror, 3: Both

8.2.1 Stream Video through Media Player
VLC media player can broadcast your IP camera view real-time and stream live video data.
(Language settings: /videostream.asf?user=&pwd=&resolution=&rate=)

From the following picture, we see that the IP camera's local IP address is: http://192.168.1.111:8999
TWAN IP Address is: http://reotest1.dyndns.org:8999 we can input the IPcam's IP address to open via the media player:

The "CLC media player" open play position:
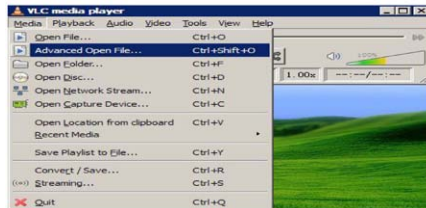
LAN play address;
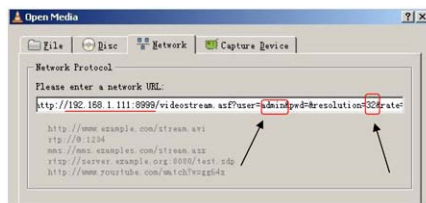
Open the Internet play position:
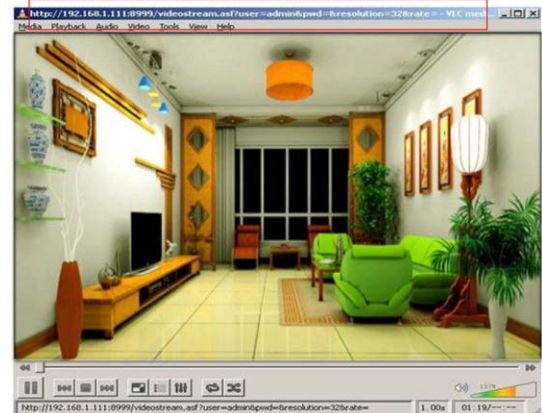
As shown in the following picture, It can see the ip camera send video streaming format
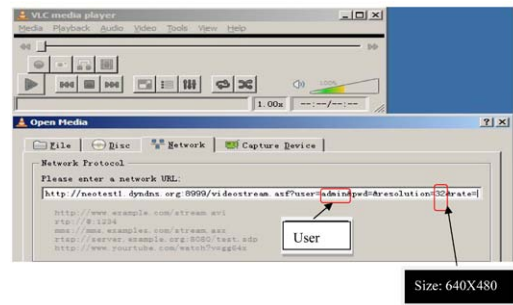
8.3 Frequently Asked Questions

Note:

1. If you encounter any difficulties during either the setup or running of your IP Security Camera system, you should first check all the network connections to make sure everything is properly connected.

2. Check the indicator status of your network server, hub, exchange, and network card.

8.3.1 I have forgotten the administrator username and/or password.
To reset the administrator User name and password, Press and hold down the RESET BUTTON for 5 seconds. Release the power button and the username and password will be reset to the factory default administrator User name and password.
Default administrator User name: admin
Default administrator password: No password

8.3.2 IP address configuration
To check if the IP address of the IP camera and your computer share the same subnet, click: My Computer > Control Panel > Network & Dial-up Connections > LAN > Attributes > Internet Protocols (TCP/IP), and check the IP address and Subnet Mask. Make sure the camera and computer are in the same subnet when configuring the IP camera's IP address manually.

8.3.3 Network Configuration
Check to ensure that your http Server software is configured and running properly. If you are running firewall software make sure it allows inbound connections to port 80. Also, if you are using a cable/DSL router, make sure you have set up port forwarding properly. (Consult your router's documentation for more information.) If none of these seems to be the problem, it is also possible your ISP is blocking inbound connections to port 80. Many ISPs have done this because of internet worms such as Code Red. If this is the case, you will have to setup your http Server on an alternate port, such as 8080.

8.3.4 I cannot see what my camera is monitoring
There are four reasons why you might not be able to view the images your camera is sending:
1. If the DirectX function is not installed, color images may not display properly. Please install DirectX, open the start menu and input the command.
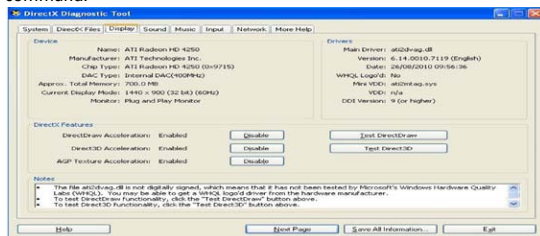
In DirectX, DirectDraw, Direct3D and AGP Texture should be enabled.

If these features do not work, there may be connection issues or the hardware is not reading it properly.
2. You may have a hardware issue, for example, it cannot support the card or enable images.
3. Your firewall or antivirus software may be blocking the camera. Try closing your antivirus software or firewall, or make the camera a "trusted device" in the firewall and antivirus settings.
4. ActiveX controller may not be installed correctly. If there's no image the first time you use the camera there may be an installation error. Follow these steps:
   1. Install the "IP Camera Tool" and ActiveX control at the same time.
   2. Install ActiveX control, maintaining the Internet Explorer security settings.

8.3.5 Network bandwidth problems

The image frame rate is subject to the following factors: 1) network bandwidth, 2) computer performance, including network environment and display preference settings (brightness, theme, etc.), 3) the number of visitors accessing at one time (too many visitors can slow down the image frame rate), 4) choice of switch or hub for access (use of a switch rather than a hub is recommended for multiple IP cameras).

Devices using MJPEG compression require a lot of network bandwidth. If there is not enough, it will lead to slower browsing. Typical video settings require network bandwidth as noted below:
640x480@30fps: 4.0 Megabits~5.0 Megabits
320x240@30fps: 1.2 Megabits~1.6 Megabits

8.3.6 Why am I getting a "Failure to connect to the device" prompt?
This can happen when you have multiple cameras. Enter the Multi-Device Settings page (log in as administrator) to make sure the Device settings are correct. When one of the multiple cameras is disconnected, the indicator color changes to yellow ⬤ and this prompt appears.
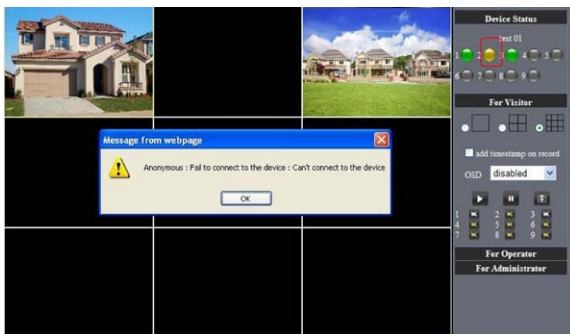
8.3.7 Why can't my IP camera be accessed over the internet?
There could be several reasons:
1.   The ActiveX controller is not properly installed (see details in Section 5.1.4).
2.   Your firewall or antivirus software is blocking the port. Change the port number and retry.
3.   Port mapping is incorrect. You can do port mapping one of two ways:
      1. Enter the settings page of the router the IP camera is connected to, to enable the UPnP function. Enter the IP camera "UPnP Settings" to enable UPnP, and make sure the status is "UPnP success".
      2. If your router has a virtual mapping function, enter the router settings page, and add the IP camera's IP address and port to the virtual map list. When using ADSL, the IP address is dynamic. You should set the DDNS (see details in Section 5.1) and also make sure the status is "port mapping success".

8.4 Solutions to common operating problems
The IP Camera Tool cannot locate the camera's IP address.
This assumes the camera is not broken.
First, check the Ethernet cable and power cable to make sure everything is properly connected according to international standards. Another issue could be the computer's operating system may not be the level required to run the IP Camera system.
Second, check to make sure the power is on and that the power indicator light is on. If it is on, then check the yellow light on the RJ45 port (power indicator light) and the green light (network indicator light). If these lights are both on, the power supply is functioning normally.
Third, check to make sure your firewall and antivirus software is not blocking the camera. Firewalls often block unrecognized data, so if the firewall is running, it may be blocking the IP Camera Tool's ability to find the device. We recommend you temporarily shut down the firewall and antivirus software before searching, or, set the camera as a "Trusted Device" in your firewall and antivirus settings.

Why am I getting a blank screen from my camera?
1.   Check to see if you are using the wrong power adaptor. Please use the one that came with your IP Camera system.
2.   Close antivirus software.

Why can't I login to my camera over the Internet?
1.   Check to make sure "DDNS success" is set.
2.   Make sure the current IP camera's port number is the same as your router's port number. These two numbers should be the same.

Why can't I see what my camera is monitoring?
1.   Reason: Unable to connect with the network
      Solution: Make sure you have a network connection and that there are no cable failures or computer viruses that could be causing network failure.
2.   Reason: The IP address is being used by another device
      Solution: Choose automatic gain
3.   Reason: The IP address is located within a different subnet
      Solution: Check the IP camera's IP address, subnet mask address, and gateway settings.
4.   Reason: Web port has been changed
      Solution: Contact your network administrator to obtain the correct port information.
5.   Reason: Unknown
      Solution: Press reset button to restore factory defaults, then reboot. The system default for obtaining an IP address is automatic, the subnet mask is 255.255.255.0

8.5 Default Settings
Default network settings
IP address: dynamic obtain
Subnet mask: 255.255.255.0
Gateway: dynamic obtain
DDNS: Factory provide- Username and password
Default administrator username: admin
Default administrator password: No password

8.6 Technical Settings
ITEM - IP CAM (NIP-02BGPWA2)
Image Sensor –
      Image sensor - 1/5" Color CMOS Sensor
      Display - 640 x 480 (300k Pixels)
      Lens - f: 3.6mm, F: 2.4 (IR Lens)
      Mini.illumination - 0.5 Lux
Lens -
      Lens Type - Glass Lens

Viewing Angle – 60-degree

Audio – Microphone - No head

Domain name – Server - MSN server/DDNS server

Video -
Image Compression - MJPEG
Image Frame Rate - 15 FPS (VGA), 30FPS (QVGA)
Resolution - 640 x 480(VGA), 320 x 240(QVGA)
Flip Mirror Images - Vertical/Horizontal
Mode - 50Hz, 60Hz, or Outdoor
Video Parameters - Brightness, Contrast

Communication -
Ethernet - One 10/100Mbps RJ-45
Supported Protocol - http/DHCP/IP/TCP/UDP/FTP/SMTP/DDNS/PPPoE/ UPnP
Mobile phone monitor - Support iPhone/iPad/3G Phone/smartphone
Wireless Standard - IEEE 802.11b/g
Wireless Standard - 802.11b:11Mbps (max.) 802.11g: 54Mbps (max.)
Wireless Security - 64/128-bit WEP Encryption

Physical -
Pan/Tilt Angle - Fixed
Infrared Light - 22 IR LEDs, night visibility up to 20 meters
Product size – 130mm x 130mm x 75mm
Gross Weight - 498g/17.5 oz)
Net Weight - 291.4g/ 10.2 oz

Power -
Specification - DC 5V/2.5A 1.8 meter
Power Consumption - 5 watts

Environment -
Operating Temperature - 0°~55°C (14°~130°F)
Operating Humidity - 20% ~ 85% non-condensing
Storage Temperature -10° ~ 60°C (50° ~ 140°F)
Storage Humidity - 0% ~ 90% non-condensing

PC Requirements -
CPU - 2.0GHz or above (recommended 3.0GHz)
Memory Size - 512MB or above (recommended 1.0GB)
Display card - 64M or above
Supported OS - Microsoft Windows XP/Vista/Windows7
Supported Browsers – Internet Explorer/Firefox/Google Chrome

Certification - CE, FCC, RoHS

Warranty - Limited 1-year warranty

More information and resources are available for download at:
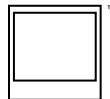www.polaroidsafety.com.

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